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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/694,848	10/20/2000	Jeffrey S. Hamilton	T712-10	8779

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EXAMINER

REKSTAD, ERICK J

ART UNIT	PAPER NUMBER
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2613

DATE MAILED: 09/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/694,848

Applicant(s)

HAMILTON, JEFFREY S.

Examiner

Erick Rekstad

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 March 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 and 16-42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 and 16-42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This is a Final Action for Application no. 09/694,848 in response to the amendment filed on 02 March 2005 where in claims 1-9 and 16-42 are presented for examination.

Information Disclosure Statement

The information disclosure statements (IDS) submitted on July 17, 2001, June 26, 2002 and January 27, 2003 were considered previously by the examiner. Signed copies of the 1449s are provided with this office action.

Response to Arguments

Applicant's arguments filed claims 1-9 have been fully considered but they are not persuasive.

The applicant argues that Haskell does not disclose, teach or suggest computing a rate profile of a program stream. Specifically, that the rate of both the incoming and outgoing program stream is known, there is no reason to compute the rate profile of the program stream as required. As cited in the previous office action, Haskell teaches the computing of the rate profile (bit rate) (Col 5 Lines 29-35). The citation shows that Haskell teaches the calculation of the bit rate for each frame and bits per macro block. Therefore, it is viewed by the examiner that Haskell satisfies the rate profile required by claim 1.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention

where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Haskell teaches a method for compressing a video stream using the quantizer (702, Fig. 7) which Safadi requires to vary the rate of a commercial compression (Col 5 Lines 26-34). Therefore it would have been obvious to combine Safadi and Haskell in order to vary the compression of the commercial.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 6,487,721 to Safadi in view of US Patent 5,687,095 to Haskell et al.

[claim 1]

Safadi teaches the method for inserting a digital media advertisement in a digital multiplexed stream (MPTS), the method comprising: using a rate profile (bit rate) associated with a program stream; compressing (re-quantization) the digital media advertisement according to the rate profile; and inserting the compressed digital media advertisement in the digital multiplexed stream at an advertising opportunity (cue command) in the program stream (Col 4 Lines 50-55 and 63-67, Col 5 Lines 26-34, Col

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6 Lines 29-41, Fig. 1). Safadi does not teach the computing of the rate profile. Haskell teaches the computing of the rate profile (bit rate) for input into a re-quantization step in order meet a desired output rate signal and buffer status (Col 4 Lines 38-55, Col 5 Lines 17-50). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the advertisement insertion method of Safadi with the bit rate computing method of Haskell in order to re-quantize the advertisement to meet a desired output rate signal and buffer status.

[claim 2]

Safadi teaches the method of inserting an advertisement where a cue command is used to define a splice point (Col 6 Lines 29-41). The cue command further contains a desired bit rate (Col 3 Lines 64-67). It would have been obvious to one of ordinary skill in the art at the time of the invention that the bit rate provided by the cue command is predetermined.

[claim 3]

Safadi does not teach the use of a maximum bit rate. Haskell teaches the use of a maximum bit rate which is used to reduce the stream to the desired bit rate (Col 1 Lines 21-31, Col 10 Lines 23-67, Col 11, Figs 6 and 9). It would have been obvious to one of ordinary skill in the art at the time of the invention that Haskell teaches the use of a maximum bit rate in order to reduce the bit rate of a stream.

[claim 4 and 9]

Safadi does not teach the use of a minimum bit rate. Safadi further does not teach the use of null packets to meet a desired bit rate. Haskell teaches the use of a

minimum bit rate and null packets in order to add null packets to a stream so that the bit rate of the stream meets the minimum bit rate (Col 1 Lines 31-48, Fig. 9).

[claims 5 and 6]

Safadi teaches the uses of a start point for the insertion of the advertisement and an end point (Col 3 Lines 30-50). It would have been obvious to one of ordinary skill in the art at the time of the invention that the start and end points are instructions for insertion as they notify the insertion method when to insert the advertisement.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Safadi and Haskell as applied to claims 1 and 2 above, and further in view of US Patent 6,611,624 to Zhang et al.

[claim 7]

Safadi teaches the method of inserting the advertisement is compatible with variable bit rate streams, such as statistically multiplexed (Col 3 Lines 1-6). Safadi does not specifically teach how the method is compatible. Zhang teaches the method of re-coding the advertisement in order to produce a bitrate profile that fits the available bandwidth in order to eliminate both the rate mismatch problems and decoder buffer compliance problems (Col 1 Lines 31-44, Col 11 Lines 43-67 and Col 12 Lines 1-30). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the method of Safadi with the variable bit rate stream matching method of Zhang in order to eliminate the rate mismatch problems and decoder buffer compliance problems.

Claim 8 rejected under 35 U.S.C. 103(a) as being unpatentable over Safadi, Haskell and Zhang as applied to claims 1,2 and 7 above, and further in view of US Patent 6,208,688 to Seo et al.

Safadi, Haskell and Zhang teach a method of inserting an advertisement into a multiplexed stream using a bit rate profile. Safadi, Haskell and Zhang further teach the method of re-quantizing the advertisement stream in order to adjust the bit rate. Safadi, Haskell and Zhang do not teach the method of using a piecewise linear model for the bit rate profile. Seo teaches the use of a piecewise linearly decreasing model of the bitrate in order to re-quantize a stream more efficiently (Col 4 Lines 34-43, Col 7 Lines 12-67, Col 8 Lines 1-50, Col 9 Lines 18-46, Figs 6A, 7, and 9). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the advertisement insertion method of Safadi, Haskell, and Zhang with the re-quantization method of Seo in order to re-quantize the advertisement more efficiently.

Claim 16 rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 6,704,930 to Eldering et al.
[claims 16,17, 29, and 30]

Eldering teaches a method and system for inserting an advertisement into a statistically multiplexed stream (Col 5 Lines 10-26, Fig. 5 and 10). Wherein a program stream rate profile for a program stream within a statistically multiplexed stream is computed (Col 5 Lines 24-26). Eldering further teaches the including of insertion points (avail rate profile) within the program stream as required by claims 16 and 17 (Col 5

Lines 12-19). The advertisement is then compressed and inserted into the program stream based on the rate profile (Col 5 Lines 10-26, Fig. 5).

[claims 19, 20, 21, 32]

As shown in Figure 5, the program streams vary in bit rate over time. Therefore it would have been obvious that at each start point the bit rate will vary as required by claims 19 and 32. Eldering further teaches the available rate to the advertisement is equal to the program stream rate (Col 5 Lines 22-26).

[claims 23-27, 34- 39, 41 and 42]

As shown in Figure 4, multiple advertisements are added to multiple program streams at the same time. Each advertisement is limited to the bit rate of the program stream it will be inserted in (Col 5 Lines 1-9). Further as shown in Figure 4, the combination of all advertisements do not exceed the bit rate of the programs. Eldering teaches a different insertion means wherein the advertisement bit rate may exceed the program bit rate as required by claims 25, 26, 36 and 37 (Col 4 Lines 30-52, Fig. 2). In regards to claims 27 and 39, it would have been obvious that one advertisement would have a lower bit rate than another advertisement in order to maintain the overall bit rate as shown in Figure 2.

[claims 28 and 40]

Eldering teaches a similar method of Figure 2 in Figure 3. Wherein AD1 and AD2 are staggered as required by the claims.

Claims 18, 22, 31 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eldering as applied to claim 16 above, and further in view of US Patent 5,687,095 to Haskell et al.
[claims 18, 22, 31 and 33]

Eldering teaches the method of claim 16. Eldering further teaches the compressing of the advertising material in order to meet a level identical to the programming (Col 5 Lines 3-5, and lines 24-26). As shown in Figure 5, the advertisements are limited to the maximum and minimum bit rates of the programs. Eldering further teaches the advertisements are sent to the ad manager in a partially or fully compressed format (Col 8 Lines 6-8). Eldering does not specifically teach the use of null packets.

Haskell teaches the use of a maximum bit rate which is used to reduce the stream to the desired bit rate (Col 1 Lines 21-31, Col 10 Lines 23-67, Col 11, Figs 6 and 9). Haskell further teaches the use of a minimum bit rate and null packets in order to add null packets to a stream so that the bit rate of the stream meets the minimum bit rate (Col 1 Lines 31-48, Fig. 9). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the compression method of Haskell with the advertisement insertion method of Eldering in order to produce an advertisement stream that meets the minimum and maximum bit rates of the program stream.

Conclusion


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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Erick Rekstad whose telephone number is 571-272-7338. The examiner can normally be reached on 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on 571-272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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